

1 and the like. If a proxy copy is stored in the cache memory 124, the target
2 resource is served locally from the cache memory 124. If there is no proxy copy,
3 the local service provider 110 uses the URL request to locate the target resource
4 from a content provider and to request delivery of the target resource over the
5 Internet. The local service provider 110 passes the target resources on to the
6 requesting subscriber and may also cache the target resource in the cache 124 if
7 the policy rules governing the cache are met.

8 The local service provider 110 has a hit recorder 112 which is coupled to
9 receive the URLs submitted by the subscribers. For each URL, the hit recorder
10 112 records hit information in a URL hit database 114. The hit information
11 includes the date/time of the request, the subscriber who made the request, and
12 other information. The hit recorder 112 also triggers a pattern recognizer 116
13 which draws on information in the URL hit database 114 to detect repetitive access
14 behavior patterns based on subscriber requests. The pattern recognizer 116
15 performs statistical analyses using hit data from the URL hit database to determine
16 usage patterns that help the local service provider be more responsive to the needs
17 of its clientele. For instance, in the preferred implementation, the pattern
18 recognizer 116 determines which URLs, and hence which Internet resources, are
19 being requested most often and least often, and the time of day when the most
20 requests are received. The pattern recognizer 116 is also responsive to operator
21 input to allow adjustment or tuning by the operator for specialized analysis.

22 A scheduler 118 uses the pattern results generated by the pattern recognizer
23 116 to schedule requests for specific URLs of target resources on the Internet. The
24 requests are scheduled to be filled at pre-selected times prior to the peak times
25 when the highest number of users are most likely to request the content found at